

WHAT IS CLAIMED IS:

1. A method comprising:

receiving status information concerning a size and location of a data packet;

receiving statistical information concerning a bus condition; and

storing the status information and the statistical information on a storage device using a single write procedure.

2. The method of claim 1 further comprising receiving the data packets from the data bus.

3. The method of claim 1 further comprising monitoring the status of the bus and generating the statistical information.

4. The method of claim 1 further comprising generating control information which specifies the storage location for each data packet.

5. The method of claim 4 further comprising storing the control information on the storage device.

6. The method of claim 5 further comprising storing each data packet on the storage device at the storage location specified by the control information.



1 10. A statistics reporting process comprising:

2 a status information process for receiving status  
3 information concerning a data packet;

4 a statistics information process for receiving  
5 statistical information concerning a bus condition; and

6 a unified write process for storing said status  
7 information and said statistical information on a storage  
8 device using a single write procedure.

1 11. The statistics reporting process of claim 10 further

2 comprising an Input/Output (I/O) controller connected to a

3 data bus; wherein said I/O controller receives from said data

4 bus said data packets and said I/O controller monitors the

5 status of said bus and generates said statistical information.

1 12. The statistics reporting process of claim 11 further

2 comprising a control information write process for receiving

3 control information which specifies a storage location where

4 each said data packet is to be stored and storing said control

5 information on said storage device.

1 13. The statistics reporting process of claim 12 further

2 comprising a device driver process for generating said control

3 information and providing it to said control information write

4 process.

1 14. The statistics reporting process of claim 13 further  
2 comprising a packet write process for storing each said data  
3 packet on said storage device at said storage location  
4 specified by said control information.

1 15. The statistics reporting process of claim 14 further  
2 comprising:

3 a first communication bus for interfacing said  
4 device driver process and said statistics reporting  
5 process;

6 wherein said device driver process provides said  
7 control information to said control information write  
8 process via said first communication bus.

1 16. The statistics reporting process of claim 15 wherein said  
2 device driver process includes a packet retrieval process for  
3 retrieving said data packets stored on said storage device via  
4 said first communication bus.

1 17. The statistics reporting process of claim 15 wherein said  
2 device driver process includes a status retrieval process for  
3 retrieving said status information stored on said storage  
4 device via said first communication bus.

1 18. The statistics reporting process of claim 14 further  
2 comprising a second communication bus for interfacing said I/O  
3 controller and said statistics reporting process.

1 19. The statistics reporting process of claim 18 wherein said  
2 I/O controller includes a statistical information transmission  
3 process for providing said statistical information to said  
4 statistics information process via said second communication  
5 bus.

1 20. The statistics reporting process of claim 18 wherein said  
2 I/O controller includes a data transmission process for  
3 providing said data packets to said packet write process via  
4 said second communication bus.

1 21. The statistics reporting process of claim 18 wherein said  
2 I/O controller includes a status transmission process for  
3 monitoring said data packets, generating said status  
4 information concerning the size and condition of said data  
5 packets, and providing said status information to said status  
6 information process via said second communication bus.

1 22. The statistics reporting process of claim 10 wherein said  
2 storage device is a system memory.

1 23. The statistics reporting process of claim 22 wherein said  
2 system memory includes a Read Only Memory (ROM) and said  
3 statistics reporting process resides on said ROM.

1 24. The statistics reporting process of claim 10 wherein said  
2 storage device includes a dedicated memory area for storing

3 said statistical information, said control information, and  
4 said status information.

1 25. The statistics reporting process of claim 24 wherein said  
2 dedicated memory area includes:

3 a control information storage area for contiguously  
4 storing said control information, and

5 a status/statistical information storage area for  
6 contiguously storing said status information and said  
7 statistical information;

8 wherein said unified write process stores said  
9 status information and said statistical information using  
10 a single write procedure.

1 26. A computer program product residing on a computer  
2 readable medium having a plurality of instructions stored  
3 thereon which, when executed by the processor, cause that  
4 processor to:

5 receive status information concerning the size and  
6 location of the individual data packets;

7 receive statistical information concerning various bus  
8 conditions; and

9 store the status information and the statistical  
10 information on a storage device using a single write  
11 procedure.

1 27. The computer program product of claim 26 wherein said  
2 computer readable medium is a read-only memory.

1 28. A statistics reporting system comprising:

2 an Input/Output (I/O) controller connected to a  
3 distributed computing network; wherein said I/O  
4 controller receives data packets from said network,  
5 monitors the status of said network and generates  
6 statistical information concerning said network's  
7 condition;

8 a statistics reporting process comprising:

9 a status information process for receiving  
10 status information concerning a data packet;

11 a statistics information process for receiving  
12 said statistical information; and

13 a unified write process for storing said status  
14 information and said statistical information on a  
15 storage device using a single write procedure; and  
16 a central processing unit (CPU) for executing said  
17 statistics reporting process which resides on a Read Only  
18 Memory.

1 29. The statistics reporting system of claim 28 wherein said  
2 statistics reporting process further includes:

3 a control information write process for receiving  
4 control information which specifies a storage location  
5 where each said data packet is to be stored and storing  
6 said control information on said storage device; and



7 a device driver process for generating said control  
8 information and providing it to said control information  
9 write process.

1 30. The statistics reporting system of claim 29 further  
2 comprising:

3 a first communication bus for interfacing said  
4 device driver process and said statistics reporting  
5 process; and

6 a second communication bus for interfacing said I/O  
7 controller and said statistics reporting process.

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